# **ACTUARIAL METHODS AND ASSUMPTIONS**

To calculate the contribution rates necessary to pre-fund a plan's benefits, an actuary uses an actuarial cost method, an asset valuation method, economic assumptions, and demographic assumptions. This section, together with the web pages linked below, lists the actuarial methods and assumptions used for this valuation.

### **ACTUARIAL METHODS**

Please see the <u>Actuarial Methods</u> web page for descriptions of the actuarial cost methods and asset valuation method we use for this valuation.

#### **ACTUARIAL ASSUMPTIONS**

This section lists the assumptions that change regularly, along with new assumption and method changes since the last actuarial valuation report. Please see the <u>Actuarial Assumptions</u> web page for descriptions of all remaining assumptions.

#### **ECONOMIC ASSUMPTIONS**

We adjust the general salary growth assumption for TRS each year to model the salary bonus payable to members who attain national board certification. These bonuses are includable in compensation for pension purposes.

TRS General Salary Increase by Year		
Year	TRS 1	TRS 2/3
2016	3.75%	3.75%
2017	3.75%	3.75%
2018	3.85%	3.85%
2019	3.84%	3.84%
2020	3.83%	3.83%
2021	3.83%	3.82%
2022	3.82%	3.82%
2023	3.81%	3.81%
2024	3.80%	3.80%
2025	3.79%	3.79%
2026	3.78%	3.78%
2027	3.77%	3.77%
2028	3.77%	3.77%
2029+	3.75%	3.75%

Note: Includes inflation.

## **DEMOGRAPHIC ASSUMPTIONS**

The Employee Contribution Rate assumption helps us estimate the value of accumulated employee contributions with interest if a member elects a refund of contributions instead of a deferred retirement allowance upon termination.

Employee Contribution Rates for Savings Fund Accrual		
System/Plans	Contribution Rate*	
PERS 2	5.42%	
TRS 2	6.42%	
SERS 2	5.66%	
PSERS 2	7.06%	
LEOFF 2	8.75%	
WSPRS 1/2	7.34%	

\*PERS 1 and TRS 1 employee rates are set in statute at 6%.

No LEOFF 1 rates are required as long as the plan remains fully funded.

Plan 3 members do not contribute to the defined benefit plan.

# CHANGES IN METHODS AND ASSUMPTIONS SINCE THE LAST VALUATION

- For all plans except LEOFF Plan 1, we corrected how we value terminated vested member death benefits. Prior to this correction, we applied factors at the time of termination, rather than at the time of death.
- We updated WSPRS salary assumptions to model legislation signed during the 2016 Legislative Session (C 28 L16). This law includes two, one-time salary increases taking effect on July 1 of 2016 and 2017. The law also requires that future salaries remain competitive with other law enforcement agencies in the state. To reflect this law, we updated our general salary growth assumption to include two, short-term increases of five and approximately eleven percent in 2016 and 2017, respectively; additionally, we used the existing LEOFF service-based salary growth assumption table as a proxy for competitive salary growth.
- We improved how we value the Basic Minimum COLA in PERS Plan 1 and TRS Plan 1 for legal order payees (third party benefit recipients).
- We updated our TRS system growth assumption from 0.80 percent to 1.25 percent, as prescribed by <u>RCW 41.45.035</u>.
   This change only impacts the calculation of the TRS Plan 1 UAAL rate. See the 2015 Economic Experience Study on our <u>Website</u> for analysis supporting this assumption change.